Listing of Claims:

1. (Currently Amended) An optical gain correction filter comprising:

a multilayer film structure formed by stacking a plurality of thin films with different ~~diffractive indexes~~ refractive indices on a light transmitting board,

wherein when ~~the~~ light with ~~the~~ a wavelength λ enters at ~~the~~ an incident angle θ, ~~the~~ a transmissivity is assumed to be $T1(\lambda, \theta)$ $(0 \leq T1(\lambda, \theta) \leq 1)$, and ~~the~~ a thickness of each thin film is set to increase the transmissivity $T1(\lambda_0, \theta)$ when the incident angle θ increases close to ~~the~~ a predetermined maximum incident angle θmax with respect to the incident light with ~~the~~ a wavelength λ_0 entering the multilayer film structure.

2. (Currently Amended) The optical gain correction filter according to claim 1, wherein the plurality of thin films ~~which construct the multilayer film structure are formed by~~ comprise alternately ~~stacking~~ stacked SiO_2 films with ~~the~~ a refractive index of 1.46 and TiO_2 films with ~~the~~ a refractive index of 2.3.

3. (Currently Amended) The optical gain correction filter according to claim 2, ~~having~~ wherein the transmissivity ~~of~~ is not

more than 70% ~~or lower~~ so that the wavelength λ_0 of the incident light coincides with ~~the~~ a position of a ripple of a band pass filter.

4. (Currently Amended) The optical gain correction filter according to claim 1, wherein the thin films ~~which construct the multilayer film structure are formed by~~ comprise alternately ~~combining~~ stacked (a) films made from one of SiO_2, MgF_2, Al_2O_3 ~~or~~ and SiO and (b) films made from one of TiO_2, CeO_2, ZrO_2, Ta_2O_5 ~~or~~ and ZnS.

5. (Currently Amended) An optical gain correction filter comprising:

a multilayer film structure formed by stacking a plurality of thin films with different ~~diffractive indexes~~ refractive indices on a light transmitting board, wherein

when ~~the~~ light with ~~the~~ a wavelength λ enters at ~~the~~ an incident angle θ ~~the~~ a transmissivity is assumed to be $T1(\lambda, \theta)$ $(0 \leq T1(\lambda, \theta) \leq 1)$, and ~~the~~ a thickness of each thin film is set to increase the transmissivity $T1(\lambda, \theta_0)$ when the wavelength λ increases close to ~~the~~ a predetermined maximum wavelength λmax with respect to the incident light entering the multilayer structure at ~~the~~ an incident angle of θ_0.

6. (Currently Amended) The optical gain correction filter according to claim 5, wherein the plurality of thin films ~~which construct the multilayer film structure are formed by~~ comprise alternately ~~stacking~~ stacked SiO_2 films with ~~the~~ a refractive index of 1.46 and TiO_2 films with ~~the~~ a refractive index of 2.3.

7. (Currently Amended) The optical gain correction filter according to claim 6, ~~having~~ wherein the transmissivity ~~of~~ is not more than 70% ~~or lower~~ so that the wavelength λ_0 of the incident light coincides with ~~the~~ a position of a ripple of a band pass filter.

8. (Currently Amended) The optical gain correction filter according to claim 5, wherein the thin films ~~which construct the multilayer film structure are formed by~~ comprise alternately ~~combining~~ stacked (a) films made from one of SiO_2, MgF_2, Al_2O_3 ~~or~~ and SiO and (b) films made from one of TiO_2, CeO_2, ZrO_2, Ta_2O_5 ~~or~~ and ZnS.

9. (Currently Amended) An optical gain correction filter comprising:

a multilayer film structure formed by stacking a plurality of thin films with different ~~diffractive indexes~~ refractive indices on a light ~~transmitting~~ reflecting board,

wherein when ~~the~~ light with ~~the~~ a wavelength λ enters at ~~the~~ an incident angle θ, ~~the~~ a reflectivity is assumed to be R1 (λ, θ) ($0 \leq R1(\lambda, \theta) \leq 1$), and ~~the~~ a thickness of each thin film is set to increase the reflectivity R1 (λ_0, θ) when the incident angle θ increases close to ~~the~~ a predetermined maximum incident angle θmax with respect to the incident light with ~~the~~ a wavelength λ_0 entering the multilayer film structure.

10. (Currently Amended) The optical gain correction filter according to claim 9, wherein the plurality of thin films ~~which construct the multilayer film structure are formed by~~ comprise alternately ~~stacking~~ stacked SiO_2 films with ~~the~~ a refractive index of 1.46 and TiO_2 films with ~~the~~ a refractive index of 2.3.

11. (Currently Amended) The optical gain correction filter according to claim 10, ~~having~~ wherein the ~~transmissivity of~~ reflectivity is not more than 70% ~~or lower~~ so that the wavelength λ_0 of the incident light coincides with ~~the~~ a position of a ripple of a band pass filter.

12. (Currently Amended) The optical gain correction filter according to claim 9, wherein the thin films ~~which construct the multilayer film structure are formed by~~ comprise alternately ~~combining~~ stacked (a) films made from one of SiO_2, MgF_2, Al_2O_3 ~~or~~ and SiO and (b) films made from one of TiO_2, CeO_2, ZrO_2, Ta_2O_5 ~~or~~ and ZnS.

13. (Currently Amended) An optical gain correction filter comprising:

a multilayer film structure formed by stacking a plurality of thin films with different ~~diffractive indexes~~ refractive indices on a light ~~transmitting~~ reflecting board,

wherein when ~~the~~ light with ~~the~~ a wavelength λ enters at ~~the~~ an incident angle θ, ~~the~~ a reflectivity is assumed to be R1 (λ, θ) ($0 \leq R1\ (\lambda, \theta) \leq 1$), and ~~the~~ a thickness of each thin film is set to increase the reflectivity R1 (λ, θ_0) when the wavelength λ increases close to ~~the~~ a predetermined maximum wavelength λmax ~~wit~~ with respect to the incident light entering the multilayer structure at ~~the~~ an incident angle of θ_0.

14. (Currently Amended) The optical gain correction filter according to claim 13, wherein the plurality of thin films ~~which construct the multilayer film structure are formed by~~

comprise alternately ~~stacking~~ stacked SiO_2 films with ~~the~~ a refractive index of 1.46 and TiO_2 films with ~~the~~ a refractive index of 2.3.

15. (Currently Amended) The optical gain correction filter according to claim 14, ~~having~~ wherein the ~~transmissivity of~~ reflectivity is not more than 70% ~~or lower~~ so that the wavelength λ_0 of the incident light coincides with ~~the~~ a position of a ripple of a band pass filter.

16. (Currently Amended) The optical gain correction filter according to claim 14, wherein the thin films ~~which construct the multilayer film structure are formed by~~ comprise alternately ~~combining~~ stacked (a) films made from one of SiO_2, MgF_2, Al_2O_3 ~~or~~ and SiO and (b) films made from one of TiO_2, CeO_2, ZrO_2, Ta_2O_5 ~~or~~ and ZnS.

17. (Currently Amended) An optical apparatus comprising: [[,]]

a semiconductor laser light source ~~with the~~ which emits a laser beam having a wavelength of λ_0;

a scanning section for scanning ~~a~~ the laser beam radiated from the semiconductor laser light source;

a photodetector for receiving scattered light from the scanned laser beam; and

an optical gain correction filter, which is arranged on an optical path from the semiconductor laser light source to the photodetector, and ~~has~~ which comprises a multilayer film structure formed by stacking a plurality of thin films with different ~~diffractive indexes~~ refractive indices on a light transmitting board; ~~, in which~~

wherein when light with ~~the~~ a wavelength λ enters at ~~the~~ an incident angle θ, ~~the~~ a transmissivity is assumed to be T1 (λ, θ) ($0 \leq T1 (\lambda, \theta) \leq 1$), and ~~the~~ a thickness of said each thin film is set to increase the transmissivity T1 (λ_0, θ) when the incident angle θ increases close to ~~the~~ a predetermined maximum incident angle θmax with respect to the incident light with ~~the~~ a wavelength λ_0 entering the multilayer film structure; and

wherein the optical gain correction filter is arranged ~~in the direction~~ to increase the transmissivity T1 (λ, θ) as ~~the~~ an incident angle of the scattered light increases.

18. (Currently Amended) The optical apparatus according to claim 17, wherein the optical gain correction filter is provided ~~on the optical path, and~~ one of: on ~~the~~ a reflection surface of the scanning section, ~~or~~ and in front of the photodetector.

19. (Currently Amended) An optical apparatus comprising: [[,]]

a semiconductor laser light source ~~with the~~ which emits a laser beam having a wavelength of λ_0;

a scanning section for scanning ~~a~~ the laser beam radiated from the semiconductor laser light source;

a photodetector for receiving scattered light from the scanned laser beam; and

an optical gain correction filter, which is arranged on an optical path from the semiconductor laser light source to the photodetector, and ~~has~~ which comprises a multilayer film structure formed by stacking a plurality of thin films with different ~~diffractive indexes~~ refractive indices on a light ~~emitting~~ reflecting board; ~~, in which~~

wherein when light with ~~the~~ a wavelength λ enters at ~~the~~ an incident angle θ ~~the~~ a transmissivity is assumed to be $T1(\lambda, \theta)$ $(0 \leq T1(\lambda, \theta) \leq 1)$, and ~~the~~ a thickness of said each thin film is set to increase the transmissivity $T1(\lambda, \theta_0)$ when the wavelength λ increases close to ~~the~~ a predetermined maximum wavelength λmax with respect to the incident light entering the multilayer structure at ~~the~~ an incident angle of θ_0; and

wherein the optical gain correction filter is arranged ~~in the direction~~ to increase the transmissivity $T1(\lambda, \theta)$ as ~~the~~ an incident angle of the scattered light increases.

20. (Currently Amended) The optical apparatus according to claim 19, wherein the optical gain correction filter is provided ~~on the optical path, and~~ one of: on ~~the~~ a reflection surface of the scanning section, ~~or~~ and in front of the photodetector.

21. (Currently Amended) An optical apparatus comprising: [[,]]

a semiconductor laser light source ~~with the~~ which emits a laser beam having a wavelength of λ_0;

a scanning section for scanning ~~a~~ the laser beam radiated from the semiconductor laser light source;

a photodetector for receiving scattered light from the scanned laser beam; and

an optical gain correction filter, which is arranged on an optical path from the semiconductor laser light source to the photodetector, and ~~has~~ which comprises a multilayer film structure formed by stacking a plurality of thin films with different ~~diffractive indexes~~ refractive indices on a light reflecting board; ~~to transmit a light , in which~~

wherein when ~~a~~ light with ~~the~~ a wavelength λ enters at ~~the~~ an incident angle θ, ~~the~~ a reflectivity is assumed to be $R1(\lambda, \theta)$ $(0 \leq R1(\lambda, \theta) \leq 1)$, and ~~the~~ a thickness of said each thin film is set to increase the reflectivity $R1(\lambda_0, \theta)$ when the

incident angle θ increases close to ~~the~~ a predetermined maximum incident angle θmax with respect to the incident light with ~~the~~ a wavelength λ_0 entering the multilayer film structure; and

wherein the optical gain correction filter is arranged ~~in the direction~~ to increase the reflectivity R1 (λ, θ) as ~~the~~ an incident angle of the scattered light increases.

22. (Currently Amended) The optical apparatus according to claim 21, wherein the optical gain correction filter is provided ~~on the optical path, and~~ one of: on ~~the~~ a reflection surface of the scanning section, ~~or~~ and in front of the photodetector.

23. (Currently Amended) An optical apparatus comprising: [[,]]

a semiconductor laser light source ~~with the~~ which emits a laser beam having a wavelength of λ_0;

a scanning section for scanning ~~a~~ the laser beam radiated from the semiconductor laser light source;

a photodetector for receiving scattered light from the scanned laser beam; and

an optical gain correction filter, which is arranged on an optical path from the semiconductor laser light source to the photodetector, and ~~has~~ which comprises a multilayer film structure formed by stacking a plurality of thin films with

different ~~diffractive indexes~~ refractive indices on a light ~~transmitting~~ reflecting board; ~~, in which~~

wherein when light with ~~the~~ a wavelength λ enters at ~~the~~ an incident angle θ, ~~the~~ a reflectivity is assumed to be R1 (λ, θ) ($0 \leq R1\ (\lambda, \theta) \leq 1$), and ~~the~~ a thickness of said each thin film is set to increase the reflectivity R1 (λ, θ_0) when the ~~wavelengthλ~~ wavelength λ increases close to ~~the~~ a predetermined maximum wavelength λmax ~~wit~~ with respect to the incident light entering the multilayer structure at ~~the~~ an incident angle of θ_0; and

wherein the optical gain correction filter is arranged ~~in the direction~~ to increase the reflectivity R1 (λ, θ) as ~~the~~ an incident angle of the scattered light increases.

24. (Currently Amended) The optical apparatus according to claim 23, wherein the optical gain correction filter is provided ~~on the optical path, and~~ one of: on ~~the~~ a reflection surface of the scanning section, ~~or~~ and in front of the photodetector.